Plasti-Fab expanded polystyrene (EPS) products provide specifiers with superior performance solutions when used as a void form material within forms for concrete structures. Formwork can often be simplified by using Plasti-Fab EPS cut shapes to replace form voids constructed from wood or other types of forming products within structural concrete elements.

Plasti-Fab EPS cut shapes were used as an alternative void forming material to form voids in concrete bridge girders on the Yellowhead Trail/Capilano Drive overpass project in 1993. EPS cut shapes provided an economical solution that saved significant on-site forming time by Alberco Construction. The complexity of the deck geometry was easily accommodated using Plasti-Fab GeoSpec fill material.

The bridge girder layout included sixty separate voids within the structure that were approximately 1.2 meter deep x 3.0 meter wide x 8 meter long. Of these, thirty voids could be considered typical, with the remaining varying in dimensions. In addition, all voids had chamfered corners on their top and bottom edges.

The bridge deck was completely formed in six days using Plasti-Fab GeoSpec fill material to form the voids. Completely formed means the spaces between voided areas and the top slab were completed in this period. The contractor utilized two crews of four men, with no special equipment required to complete installation of the voids made from GeoSpec fill material.

The contractor issued a letter to Plasti-Fab (see Appendix A) indicating complete satisfaction with the product supplied. Their letter indicates that the team effort on the project resulted in significant time savings that pushed this portion of the job ahead of schedule.

Appendix B provides a photographic review of the project as it progressed. Some of the points to notes are:

1. The method used to hold individual sections of EPS void form in place vertically and to prevent flotation during concrete placing is critical.
2. Support of reinforcing cages in the formwork is critical to ensure that the type and number of reinforcing chairs used does not induce excessive point loads on the void material.

Every product application benefits from the Plasti-Fab commitment to quality, service and expertise. By choosing Plasti-Fab GeoSpec fill material as a concrete void form material, customers are assured of getting the right EPS product solution that will meet their technical specifications and installation requirements.
Appendix A

Bridge Girder Void Form
Yellowhead Trail/Capilano Drive Project
Alberco Construction Letter
7 June 1994

PLASTIFAB LTD.
16135 - 114 Avenue,
Edmonton, AB
T5M 2Z3

Attention: Marc Brisebois, Manager

RE: Yellowhead Trail/Capilano Drive

Dear Sir:

We wish to express our thanks and appreciation for the team effort approach in using your GeoVoid product in the construction of a bridge deck at the Capilano/Yellowhead Interchange.

Your product was instrumental in meeting the project schedule and provided, what we believe, a revolutionary method of construction to conventional forming techniques. The complexity of deck geometry was easily accommodated by your product and resulted in significant time savings.

We look forward to potential use of GeoVoid in future projects.

Sincerely,

ALBERCO CONSTRUCTION LTD.

Ron Simonsmeier, P. Eng.
President

cc: National Concrete Association
    Len Denbraber

RS/1
Appendix B
(31 Pages)

Bridge Girder Void Form
Yellowhead Trail/Capilano Drive Project
On-Site Construction Photos